

## THE BIRDS OF THE EXUMAS, BAHAMA ISLANDS

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**ABSTRACT.**—One hundred and twenty-five species of birds are recorded living in the Exumas, 50 for the first time; 11 others are known only as fossils. Records of 14 other species are considered questionable. Of 50 probable breeding species, 25 are land birds, including the introduced Rock Dove (*Columba livia*) and Common Peafowl (*Pavo cristata*). The Greater Flamingo (*Phoenicopterus ruber*) and Red-legged Thrush (*Turdus plumbeus*) are former breeders, and the White-winged Dove (*Zenaida asiatica*) probably has colonized recently from the southern Bahamas. Nests, eggs, and young are reported for 33 species, 22 of them for the first time in the Exumas. The Bananaquit (*Coereba flaveola*) was the most frequently encountered species during summer 1991. Received 25 Nov. 1991, accepted 30 April 1992.

This report is the first review of the birds of the Exumas and is based largely on my observations covering over 60 different islands during 14–19 December 1990 and 20 May–2 August 1991, together with records gleaned from the scanty literature, data from museum specimens, and unpublished reports by other observers.

### STUDY AREA AND ORNITHOLOGICAL HISTORY

The Exumas comprise a chain of about 600–700 islands stretching 200 km along the eastern edge of the Great Bahama Bank (Fig. 1). They range from barren or sparsely vegetated rocks no more than a few square meters in area to predominately scrub-covered islands with patches of xeric-to-semimimic woodlands, the largest being Great Exuma. The Ministry of Education (1985) gives the combined areas of Great and Little Exuma as 186 km<sup>2</sup> (with maximum elevation 38.1 m), and that of the Exuma Cays as 104 km<sup>2</sup> (max. elev. 39.6 m). My measurements of Great Exuma (141 km<sup>2</sup>) and Little Exuma (25 km<sup>2</sup>) total slightly less. Barratterre, Madame Dau's Cay, Great Exuma, and Little Exuma are linked by causeways.

In 1980 there were 3767 residents in the Exumas (Ministry of Education 1985), most of them on Great Exuma; the Exuma Cays (islands north of Baratterre and referred to herein as the cays) are populated sparsely. Wildlife receives some protection in the Exumas Land and Sea Park, which extends from just south of Wax Cay to Rocky Dundas, but housing and other developments on private islands are sources of progressive habitat deterioration both within and outside park boundaries.

Bryant (1859) reported briefly some of his observations in the Exumas in 1859, as did Cory (1880) on his visit to the northern cays in 1879. Specimens Cory collected are in the Field Museum of Natural History (FMNH), along with six Burrowing Owls collected on Great Exuma for Cory by J. H. Ingraham in 1892. Chapman (1908) mentioned several species he saw during a brief stop at Norman's Cay on 31 March 1907.

C. J. Maynard visited the Exumas in 1883, 1884, 1893, and 1915, mainly to collect *Cerion* snails. Some of his observations on the birds are scattered among his privately published and little-known books and journals, and the 82 study skins of 19 species he collected are in the Museum of Comparative Zoology, Harvard Univ. (MCZ), eight of them from Highborne Cay on 8 and 9 April 1893, and the others from islands throughout the chain during

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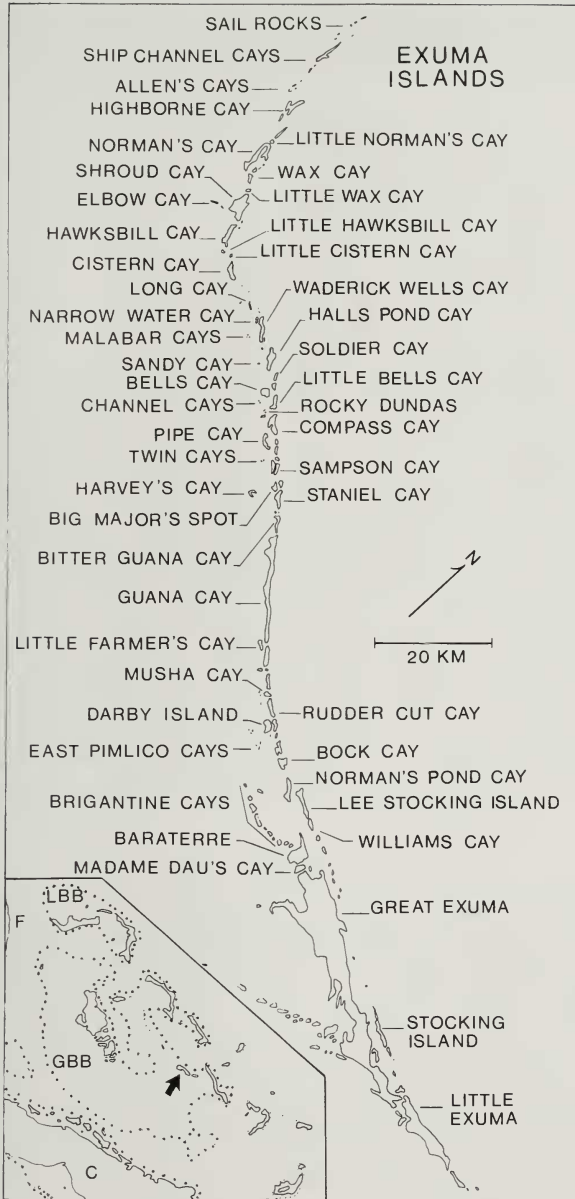


FIG. 1. Map of the Exuma Islands. Inset arrow points to Great Exuma, C = Cuba, F = Florida, GBB = Great Bahama Bank, LBB = Little Bahama Bank. Guana Cay = Great Guana Cay.

5 March–1 April 1915. The names of the islands and settlements where he collected birds in 1915 (listed geographically from north to south) and the dates are Highborne Cay, 5 March, Cistern Cay, 1 April, Conch Cut Cay (=Rocky Dundas?), 12 March, Sampson Cay, 13 March, Harvest Cay (=Harvey's Cay), 13 and 16 March, Bitter Guana Cay (visited on 14 and 31 March, but collection date of Osprey unstated), Black Point (northern end of Great Guana Cay), 14 March, Cave Cay, 17 March, Norman's Pond Cay, 19 March, Refuge Cay (=Lee Stocking Island)—see Maynard (1926:238), 20 March, Anne's Tract (settlement on Baratterre), 20 March, Great Exuma (including Roseville = Rolleville, a settlement on the northeastern coast), 20–24 March, Brigantine Cays, 28 March, Green Turtle Cay, 24 March, and Little Exuma, 23 March. Some specimens labeled as from Norman's Pond are cataloged under Norman's Cay, all of them collected on 19 March when Maynard was in the southern Exumas thus indicating the correct locality is Norman's Pond Cay.

Allen (1961a, b) mentioned some of the birds he saw in the northern Exumas (Norman's Cay southward to Waderick Wells Cay) in January 1958. Bond (1964) listed several species he saw on Great Exuma in late January 1964, and he included additional notes on Exuma birds in this and other supplements to his 1956 check-list of West Indian birds (Bond 1962, 1963, 1964, 1970, 1973, 1978, 1982, 1984). Thirteen specimens of seven species collected on Staniel Cay, Big Major's Spot, and Bitter Guana Cay by G. A. Darling, M. W. Hucks, and J. K. Lewis on 23 and 24 December 1967 were deposited in the Albert Schwartz Collection (AS) now in the Louisiana State University Museum of Natural Science.

M. H. Clench's field notes contain records of birds she saw during brief visits to Great Guana Cay on 4 March and Great Exuma on 6 March 1976, and Sprunt (1984) summarized breeding records of seabirds in the Bahamas, including his observations in the Exumas during the late 1970s and early 1980s. Additional records have been contributed by D. Lonsdale, Assistant Director of the Shedd Aquarium, who visited the northern Exumas during a cruise of the *Coral Reef II*, 16–28 April 1989, J. B. Dunham, K. Burnett, and G. Wenz, who compiled a list of the birds seen on Lee Stocking Island and the northern Great Exuma region by the staff of the Caribbean Marine Research Center during February 1987–April 1989, and R. Sutherland who listed birds seen on kayak expeditions to the northern Exumas (Allen's Cays to Staniel Cay) during March–May 1991, and some in April 1989 and 1990.

#### METHODS

Scientific and English names follow the American Ornithologists' Union (1983, 1989, 1991), with exceptions noted in Buden (1992). Abbreviations of frequently used names of observers and sources of records are BBL = Bird Banding Laboratory, Laurel, Maryland, DWB = Donald W. Buden, JBD et al. = J. B. Dunham, K. Burnett, and G. Wenz, PH = Peggy Hall, PR-L = Pauline Rodgers-Lee, and RS = Robert Sutherland.

Terms describing occurrence are nonbreeding visitor (mainly in passage or overwintering), resident (occurring year-round, breeding), and summer visitor (breeding). Terms describing abundance are very common (30 or more/day), common (15–30/day), fairly common (5–15/day), uncommon (1–5 on most days), scarce (5–15/season), and rare (1–5/season). Bird counts on Great Exuma were made along roads and trails covering 112 km during July 1991, the distances being estimated from Bahamas government maps (Lands and Surveys Dept. 1968–1969). I measured the areas of Great and Little Exuma by superimposing a scaled 0.2-km grid over 1:25,000 scale maps and counting the grid squares, estimating coverage in the partially filled squares.

Locality records are summarized for common, widely distributed species and annotated in greater detail for others; all breeding records are listed. Species reported as occurring

"throughout" have been recorded on both Great Exuma and Little Exuma and are widespread in the cays. Species known in the Exumas only as fossils are listed separately, and species recorded in the Exumas for the first time (including old specimen records unreported in the literature) are indicated by asterisks.

#### SPECIES ACCOUNTS

Least Grebe (*Tachybaptus dominicus*).—Uncommon resident on Great Exuma where recorded by Bond (1956) and where I saw several pairs during July 1991. The only record for the cays is a pair seen on Lee Stocking Island in July 1988 (JBD et al.). Breeding.—One adult flushed from an empty nest on Great Exuma, 8 July 1991 (DWB).

Pied-billed Grebe (*Podilymbus podiceps*).—\*—Status uncertain, possibly scarce resident. One seen off a beach on Lee Stocking Island in April 1989 (JBD et al.) and three others at three different ponds on Great Exuma on 16 July 1991 (DWB).

Audubon's Shearwater (*Puffinus lherminieri*).—Common "summer" visitor to many of the small, rocky islets, especially in the northern part of the chain. Breeding.—Ship Channel Cays, eggs, 24 March 1859 (Bryant 1859:132), and recorded nesting during the late 1800s (Maynard 1895:39); Allen's Cays, many heard calling at night, 28 March 1991 (RS), many calling and landing disoriented on boats at night during May and June 1991 (reports from visiting yachters), ca 50 desiccated carcasses of fully grown birds presumably from 1990 breeding season, plus numerous weather-worn bones from previous seasons, all on Allen's Cay, 19 December 1990 (DWB), and Maynard's (1894) mention of "a key that lies about half a mile north of U Key [=Southwest Allen's Cay] . . . called Pimlico Key, on account of the abundance of the Pimlico or Audobon's [sic] Shearwater which inhabit it" probably is referable to Allen's Cay; Long Cay, ca 40 dead (mainly young) in a sinkhole in 1980 (PH), and several young seen and ca 500 breeding pairs roughly estimated on 29 and 30 May 1991 (D. Lee); East Pimlico Cays, ca six pairs with eggs and young in a cave during July 1990 (R. Dill). Additional sightings, but no direct evidence of breeding on Little Norman's Cay in early May 1991 (A. Potts), Little Cistern Cay on 24 April, Sandy Cay on 16 April, and Twin Cays on 15 April 1991 (RS), and on Rocky Dundas where bones were found near the mouth of a cave on 14 June 1991 (DWB).

Wilson's Storm-Petrel (*Oceanites oceanicus*).—Nonbreeding visitor. A female (FMNH 33446) was collected at Highborne Cay on 15 May 1879, presumably by the Cory expedition.

White-tailed Tropicbird (*Phaethon lepturus*).—Common summer visitor throughout the cays, but much less numerous on Great and Little Exuma and immediately adjacent islets. Early date: Shroud Cay, 26 March

1991 (RS). Breeding.—Norman's Cay, "nesting," early June 1991 (reports from visiting yachters); Shroud Cay, "nesting," 20 April 1991 (RS), ca 50 adults and many downy young seen on yearly visits in July, 1985–1989 (G. Roberts), and young in burrows on 1 August 1987 (PH); Elbow Cay, one adult in burrow, 5 June 1991 (PH); Little Hawksbill Cay, one adult in burrow, 8 June 1991 (DWB); Waderick Wells Cay, ca 20 pairs with eggs and young during 21 May–26 June 1991, and ca 50 pairs estimated total, and mainly along northeastern coast (DWB); Halls Pond Cay, "nesting," (PH); Little Bells Cay, one adult in burrow, 28 May 1991 (D. Lee); Long Rock (off western coast of Great Exuma), breeding "in holes in the horizontal surface of the rock" (Bryant 1859:128); and Sprunt (1984) reported recently confirmed breeding on Shroud Cay, Waderick Wells Cay, and Little Bells Cay.

Brown Pelican (*Pelecanus occidentalis*).\*—Nonbreeding visitor. Singles seen at Waderick Wells Cay on 9 June 1991 (DWB), Ship Channel Cays, Allen's Cays, and Great Exuma during May–July 1991 (reports from visitors and local residents), and Lee Stocking Island occasionally in April (JBD et al.) and one on 19 July 1991 (L. Cain).

Double-crested Cormorant (*Phalacrocorax auritus*) and Neotropic Cormorant (*P. brasilianus*).—Cormorants are known in the Exumas only from a scattering of sight records. JBD et al. recorded one *P. brasilianus* on Lee Stocking Island in October 1987, RS recorded one at Allen's Cays on 28 March 1991, and PR-L (in Bond 1968) reported *P. auritus* on "Great and Little Exuma." However, in view of the absence of specimens or other corroborative evidence, and because of the possibility of confusing examples of the diminutive, Bahaman race of the Double-crested Cormorant with the Neotropic Cormorant (see Watson et al. 1991), the taxonomic status of cormorants in the Exumas is uncertain; to what extent one or the other or both species occur is unknown. I saw no more than 12 cormorants and no more than two together in the Exumas during summer 1991, all on Great and Little Exuma in July, and none of the islanders queried knew of any breeding locally.

Magnificent Frigatebird (*Fregata magnificens*).\*—Nonbreeding visitor. Seen occasionally throughout the cays and 5–6 regularly at Barren Rocks, north of Waderick Wells Cay (PH)—four there on 3 June 1991 (DWB).

Great Blue Heron (*Ardea herodias*).\*—Nonbreeding visitor. One seen on Waderick Wells Cay on 15 December and possibly the same bird on Halls Pond Cay, 16 December 1990 (DWB), recorded in the northern Exumas in January 1958 (Allen 1961b), four seen at Allen's Cays on 28 March, and one each at Bells Cay on 24 March, Shroud Cay on 20 April, and Saddle Cays (south of Cistern Cay) on 24 April 1991 (RS), and seen occasionally year-round on Lee Stocking Island (JBD et al.).

Great Egret (*Casmerodius albus*).\*—Status uncertain. Three seen on

Compass Cay, 12 April 1991 (RS), one on Great Exuma on 6 March 1976 (M. H. Clench), and several others during July 1991 (DWB), and JBD et al. reported occasional summer visitors on Lee Stocking Island, and migratory flocks there and on Great Exuma in October.

Snowy Egret (*Egretta thula*).—Status uncertain. Several seen on a rock off the eastern shore of Halls Pond Cay, undated (PH), singles off Staniel Cay on 23 March and Bells Cay on 24 March 1991 (RS), and on Great Exuma on 16 July 1991 (DWB), and “occasional year-round visitors” in the Lee Stocking Island–northern Great Exuma region (JBD et al.). Recorded from “Exuma” by Bond (1956).

Little Blue Heron (*E. caerulea*).\*—Status uncertain. Two seen on Shroud Cay on 20 April and two at Saddle Cays (north of Waderick Wells Cay), 24 April 1991 (RS), and two on Great Exuma, one each on 7 and 31 July 1991 (DWB).

Tricolored Heron (*E. tricolor*).\*—Probably fairly common at least on Great Exuma where it was seen regularly during July 1991 (DWB). Breeding is undocumented. Singles seen on Shroud Cay, 26 April 1989 (D. Lonsdale), and 4 June 1991 (DWB), and others seen year-round in the Lee Stocking Island–northern Great Exuma region (JBD et al.).

Reddish Egret (*E. rufescens*).\*—Status uncertain, possibly breeding in small numbers. One dark morph seen at Pipe Cay on 1 June 1991, and single white morphs on Great Exuma on 7 and 31 July, and on Little Exuma, 30 July 1991 (DWB), and one immature white morph on Lee Stocking Island on 15 July 1991 (L. Cain).

Cattle Egret (*Bubulcus ibis*).—Status uncertain. One seen on Highborne Cay, 16 December 1990 (DWB), a pair copulating on a boat at Waderick Wells Cay, 22 April 1991 (PH), singles and small flocks occasionally in the Lee Stocking Island–northern Great Exuma region year-round (JBD et al.), several on Great Exuma in late January 1964 (Bond 1964), and up to four together at a dump there in July 1991 (DWB).

Green-backed Heron (*Butorides virescens*).—Common resident throughout. Breeding.—Five recently fledged young together on Shroud Cay, 3 June 1991 (DWB).

Yellow-crowned Night-Heron (*Nyctanassa violacea*).—Common resident throughout. Breeding.—A nest with two eggs ca 1 m high in a small tree, Sandy Cay, 2 June 1991 (DWB).

Glossy Ibis (*Plegadis falcinellus*).—Nonbreeding visitor. One seen on Great Exuma in April and another in August, years unrecorded (B. Minns), and recorded on “Great and Little Exuma” (PR-L in Bond 1968).

Roseate Spoonbill (*Ajaia ajaja*).—Nonbreeding visitor. Recorded from “Exuma” (Bond 1956), and one seen on Lee Stocking Island in March 1988 (JBD et al.).

Fulvous Whistling-Duck (*Dendrocygna bicolor*).—Probably a non-

breeding visitor. A pair was seen on Lee Stocking Island several times in May 1987 (JBD et al.), and Bond (1964) reported that B. Minns saw ca 75 together on Great Exuma and shot two, one of which was examined by R. D. Wood in late February 1964.

West Indian Whistling-Duck (*D. arborea*).\*—Resident and probably more numerous than records indicate, at least on the southernmost islands. C. Clark of Moss Town, Great Exuma reported (pers. comm.) small flocks of 2–5 seen regularly at Coakley Cay, Culmers Cay, and Jewfish (=Hummingbird) Cay, all off the western coast of Great Exuma, and many other local residents consider it an agricultural pest on Great and Little Exuma, but more numerous in the past when farming was more widespread. I saw only two on Great Exuma (one on 7 July, another on 2 August), two on Lee Stocking Island on 30 June, and one on Bock Cay on 3 July 1991. Two others were seen at Waderick Wells Cay in April 1989, 6–10 in the vicinity of Pipe Cay in April 1990, and one on Shroud Cay on 6 April 1991 (RS), and another at Waderick Wells Cay on 21 April 1988 (crew of the yacht *Azimuth*). Breeding.—A pair of adults with 11 ducklings on Lee Stocking Island in September 1988, three of the young still present in December 1988 (JBD et al.).

White-checked Pintail (*Anas bahamensis*).\*—A fairly common resident on Great Exuma where small groups of 5–20 were seen regularly during July 1991 (DWB), but less numerous in the cays. The absence of records from Little Exuma is probably artifactual. Five were seen on Waderick Wells Cay on 9 June 1991 (DWB), one on Halls Pond Cay in July 1990 (L. Roth), and others on Lee Stocking Island during spring and early summer 1988 (JBD et al.). The only winter records are 15 at a pond on Narrow Water Cay in January 1988 (PH). Breeding.—One adult with several flightless young swimming in the anchorage off the northern end of Waderick Wells Cay, date unrecorded (PH).

Northern Pintail (*A. acuta*).—Nonbreeding visitor. A female banded in Maryland on 19 January 1967 was shot at Great Exuma in October 1967 (Buden 1991, BBL files).

Blue-winged Teal (*A. discors*).—Nonbreeding visitor. Fifteen seen at a pond on Waderick Wells Cay, 26 February 1989 (PH), and 15 banded in Canada and the United States, 1948–1973, were shot during October–March 1945–1975, 13 of them at Great Exuma, two at Little Exuma, and one between Great Guana Cay and Darby Island (Buden 1991, BBL files).

Northern Shoveler (*A. clypeata*).\*—Nonbreeding visitor. A flock of 40–50 seen on Great Exuma during November 1989–January 1990 (M. Minns).

American Wigeon (*A. americana*).—Nonbreeding visitor. A female banded in Manitoba on 23 September 1952 was recovered at Great Exuma

in February 1954, and a male banded in New York on 6 October 1953 and another in Saskatchewan on 11 July 1957 were shot at Little Exuma on 15 March 1959 and in December 1957, respectively (Buden 1991, BBL files).

Ring-necked Duck (*Aythya collaris*).—Nonbreeding visitor. A male banded in Ohio on 22 March 1961 was shot at Great Exuma on 20 February 1964 (Buden 1991, BBL files).

Red-breasted Merganser (*Mergus serrator*)\*.—Nonbreeding visitor. A female with a broken leg on Lee Stocking Island in November 1987 was hand fed fish daily for about a month before it recovered and flew away on 18 December, and was last seen in the area on 25 December 1987 (JBD et al.).

Ruddy Duck (*Oxyura jamaicensis*).—Status uncertain, possibly breeding. Not uncommon on Great Exuma in winter (M. Minns), but the only breeding record for "Great and Little Exuma" (PR-L in Bond 1968) requires confirmation.

Osprey (*Pandion haliaetus*).—Fairly common resident in the cays, but scarce on Great and Little Exuma. Breeding.—Nests seen on an islet off Highborne Cay, on Norman's Cay (2), Little Hawksbill Cay, Hawkfish Rocks (north of Waderick Wells Cay), Sandy Cay, Rudder Cut Cay, and Lee Stocking Island, all during 1987–1991 (DWB and others); a set of three eggs collected in the "Exuma Cays," 5 March 1949 (Wolfe 1951, Bond 1952), and another set the first week of November 1951 (Bond 1952).

Northern Harrier (*Circus cyaneus*).—Nonbreeding visitor. Recorded on "Great and Little Exuma" (PR-L in Bond 1968), and one seen on Lee Stocking Island, 23 April 1989, and another on Barraterre in October 1989 (JBD et al.).

American Kestrel (*Falco sparverius*).—Uncommon resident on Great Exuma where seen year-round (JBD et al.) and where several pairs were observed in July 1991 (DWB), and recorded on "Great and Little Exuma" by PR-L (in Bond 1968). But no records from the cays north of Lee Stocking Island. One female perched atop a telephone pole on Little Exuma on 30 July 1991 had a pronouncedly streaked breast and may have been a migrant, whereas all others I saw at close range had a white, unstreaked (or nearly so) breast characteristic of the resident "Cuban subspecies," *F. s. sparveroides*.

Merlin (*F. columbarius*).—Nonbreeding visitor. One seen on Highborne Cay, 17 December 1990, another on Waderick Wells Cay, 22 May 1991 (DWB), and one each on Compass, Hawksbill, Little Cistern, and Wax cays on 2, 9, 18, and 22 April 1991, respectively (RS). A female was



collected on Sampson Cay by C. J. Maynard on 13 March 1915, and a female banded in New Jersey on 8 October 1979 was recovered at Little Exuma on 10 December 1979 (Buden 1991, BBL files).

Peregrine Falcon (*F. peregrinus*).—Nonbreeding visitor. A dead bird was found at Norman's Pond Cay, date unrecorded (Bryant 1859:105), one was "killed" at Norman's Cay on 7 January 1879 (Cory 1880:129), another was seen at Allen's Cays on 19 December 1990 (DWB), and several others between Allen's Cays and Rocky Dundas during 24 March–25 April 1991 (RS).

Common Peafowl (*Pavo cristatus*).—\*—Introduced on Great Exuma during the 1950s by J. L. Riggs (B. Minns, pers. comm.), and well-established island-wide, but secretive and more often heard than seen. Breeding.—A female with two chicks seen southwest of Georgetown, 27 July 1991 (DWB).

Clapper Rail (*Rallus longirostris*).—Common resident throughout but breeding is undocumented.

Purple Gallinule (*Porphyryla martinica*).—\*—Nonbreeding visitor. One found dead in the road at Hartswell, Great Exuma in early 1991 (M. Minns).

Common Moorhen (*Gallinula chloropus*).—\*—Probably resident at marshes and ponds throughout, but unrecorded on Little Exuma. Seen occasionally at Waderick Wells Cay in May and June 1991, and regularly (maximum three together) on Great Exuma in July 1991 (DWB). One was found dead at Lee Stocking Island on 14 March 1989 and another was seen on Great Exuma, 29 April 1989 (JBD et al.). Breeding.—Two adults with young at Little Wax Cay on 23 June 1988 (PH), and one adult on a nest with four eggs at a freshwater pond on Great Exuma, 15 July 1991 (DWB).

American Coot (*Fulica americana*).—Nonbreeding visitor. Local hunters consider "coots" common on Great and Little Exuma in winter. Five banded in Manitoba, Illinois (2), Minnesota, and New Jersey during 1945–1966 were shot at Great Exuma (4) and Little Exuma (1), two of them in November, one each in January and February, and one undated, and another banded in Louisiana on 27 November 1937 was shot between Darby Island and Great Exuma on 18 November 1938 (Buden 1991, BBL files).

Black-bellied Plover (*Pluvialis squatarola*).—Nonbreeding visitor. Recorded throughout the cays and on Great and Little Exuma, being more numerous in winter than summer.

Snowy Plover (*Charadrius alexandrinus*).—Status uncertain. Recorded in the northern Exumas in January 1958 (Allen 1961b), on Great Exuma in late February 1964 (R. D. Wood in Bond 1964), and on "Great and

Little Exuma" during 1966–1968 (PR-L in Bond 1968), none of the accounts mentioning numbers observed.

Wilson's Plover (*C. wilsonia*).—Common summer visitor throughout; possibly resident in small numbers. I saw none during a week on Allen's, Highborne, Waderick Wells, and Halls Pond cays in December 1990, but JBD et al. recorded it year-round on Lee Stocking Island. C. J. Maynard collected specimens on Harvey's Cay, Great Guana Cay, Farmer's (=Little Farmer's) Cay, Norman's Pond Cay, Great Exuma, and the Brigantine Cays during 14–28 March 1915, and JBD et al. reported a flock of over 200 on a small cay near Baraterre in September 1958. Breeding (all records are 1991 and from sandy beaches).—A clutch of three eggs on Great Guana Cay on 28 June (PH, DWB), another of two eggs on Norman's Pond Cay in early June and one egg on Lee Stocking Island in mid-June (L. Cain), and one adult with three recently fledged young on Great Exuma on 7 July, and another adult with two flightless young on Little Exuma, 30 July (DWB).

Semipalmated Plover (*C. semipalmatus*).—\*—Nonbreeding visitor. Singles seen at Waderick Wells Cay on 22 May, Pipe Cay on 1 June, and Little Exuma on 26 July 1991 (DWB).

Killdeer (*C. vociferus*).—Probably an uncommon to fairly common resident, at least on Great and Little Exuma; seen occasionally in the cays, but no summer records. Breeding is undocumented. Summer birds almost certainly are the West Indian subspecies, *C. v. ternominatus*, whereas the winter population probably includes both *C. v. ternominatus* and migrant *C. v. vociferus* from Canada and the United States, one example of which was collected on Norman's Cay by C. B. Cory on 7 January 1879 (FMNH 36514, female, wing length 172 mm).

American Oystercatcher (*Haematopus palliatus*).—Uncommon resident throughout; at least one or two pairs were seen on most of the larger cays visited during summer 1991 (DWB). Breeding is undocumented.

Black-necked Stilt (*Himantopus mexicanus*).—Common summer visitor at shallow ponds throughout. No winter records. Breeding.—“Nesting” on Norman's Cay (PH), and three flightless young seen at Rolletown Pond, Great Exuma on 8 July 1991 (DWB).

Greater Flamingo (*Phoenicopterus ruber*).—Former breeder, currently nonbreeding visitor. Allen (1956:122, 127) reported a nesting site at “Norman's Pond” deserted probably during the 1870s, his information based on a letter from L. E. W. Forsyth dated 21 March 1954. This locality doubtless is Norman's Pond Cay as indicated in Allen's (1956:69) map of Caribbean breeding sites, and not Norman's Cay as indicated in his map detailing northern Bahama breeding colonies (Allen 1956:189). The only other records for the Exumas are 19 immatures I saw feeding at Blue

Pond, near Rocker's Point, Great Exuma on 29 July 1991, possibly visitors from Great Inagua. Several residents of Great Exuma recalled seeing flamingos from time to time, but none was aware of any breeding there.

Greater Yellowlegs (*Tringa melanoleuca*).—Nonbreeding visitor. Recorded throughout from 7 July (Great Exuma, 1991, DWB) to 9 April (Hawksbill Cay, 1991, RS)—maximum 9 together, Great Exuma, 31 July (DWB).

Lesser Yellowlegs (*T. flavipes*).—Nonbreeding visitor. Ca 15 seen on Halls Pond Cay on 15 December 1990 (DWB), two at Harvey's Cay, 12 March 1915 (Maynard 1920), and several on Great and Little Exuma during July 1991 (DWB).

Willet (*Catoptrophorus semipalmatus*).\*—Fairly common throughout in summer; possibly resident, but no winter records. Breeding is undocumented, but many territorial pairs were seen during May–July 1991 (DWB).

Spotted Sandpiper (*Actitis macularia*).—Nonbreeding visitor. Recorded in small numbers throughout from 18 July (Great Exuma, 1991, DWB) to 25 April (Pipe Cay, 1991, RS).

Upland Sandpiper (*Bartramia longicauda*).—Nonbreeding visitor. One seen on Bitter Guana Cay, 31 March 1915 (Maynard 1920).

Ruddy Turnstone (*Arenaria interpres*).\*—Nonbreeding visitor. Recorded throughout and year-round, but less common in summer than winter.

Sanderling (*Calidris alba*).\*—Nonbreeding visitor. Two seen in the Pipe Cay area, two on Sandy Cay, and nine on Hawksbill Cay during 15–22 April 1991 (RS), two on Halls Pond Cay, 25 April 1989 (D. Lonsdale), and seven on Shroud Cay on 4 June, and three on Hawksbill Cay on 7 June 1991 (DWB).

Semipalmated Sandpiper (*C. pusilla*).—Nonbreeding visitor. A "few" seen at Harvey's Cay on 12 March 1915 (Maynard 1920). No other records, but probably present among the many unidentified sandpipers I saw on Great and Little Exuma in July 1991.

Least Sandpiper (*C. minutilla*).\*—Nonbreeding visitor. Up to 11 together on Great Exuma occasionally during the last two weeks of July 1991 (DWB), and "flocks" seen occasionally on Lee Stocking Island and Great Exuma during spring and fall 1988 (JBD et al.).

Short-billed Dowitcher (*Limnodromus griseus*).—Nonbreeding visitor. Recorded on "Great and Little Exuma" (PR-L in Bond 1968), and dowitchers (probably *L. griseus*) have been recorded in the northern Exumas during 19–28 January 1958 (Allen 1961b) and on Halls Pond Cay on 25 April 1989 (D. Lonsdale).

Parasitic Jaeger (*Stercorarius parasiticus*).\*—Nonbreeding visitor. One was seen near the Brigantine Cays in February 1988 (JBD et al.).

Laughing Gull (*Larus atricilla*).—Common summer visitor throughout. Breeding.—One hundred and fifty pairs “courting and building nests,” Sail Rocks, May 1981 (Sprunt 1984); several pairs and one clutch with two eggs and another with one egg and one nestling on an islet off the southeastern tip of Shroud Cay, 3 June 1981 (DWB); and one large chick in a colony of several pairs on the Malabar Cays, 22 June 1991 (DWB).

Herring Gull (*L. argentatus*).\*—Nonbreeding visitor. One seen daily in the harbor at Highborne Cay, 16–18 December 1990 (DWB).

Gull-billed Tern (*Sterna nilotica*).\*—Uncommon summer visitor to some of the larger cays, and fairly common on Great and Little Exuma where I saw small groups of 2–15 regularly during July 1991. No direct evidence of breeding, but many immatures I saw on Great Exuma in July probably were hatched there.

Royal Tern (*S. maxima*).\*—Uncommon summer visitor throughout. RS recorded up to ten together on at least 12 different islands from Norman’s Cay to Staniel Cay during 24 March–25 April 1991, but the only mid-winter record is one I saw on a channel marker at the tip of Norman’s Spit (off Norman’s Cay), 16 December 1990. One banded as a flightless young in Virginia on 14 July 1966 was recovered at Great Exuma on 11 July 1967 (Buden 1991, BBL files). Breeding.—Colony, 27 single-egg clutches on an islet off the northeastern tip of Hawksbill Cay, 3 June 1991 (DWB).

Sandwich Tern (*S. sandvicensis*).\*—Uncommon summer visitor among the cays; unrecorded from Great and Little Exuma. Breeding.—Several nesting pairs and two single-egg clutches at Lightning Rocks (off Long Cay) on 29 May 1991, and a colony of ca 30 adults with 13 single-egg clutches on an islet off the northeastern tip of Hawksbill Cay, 3 June 1991 (DWB).

Roseate Tern (*S. dougallii*).—Fairly common summer visitor among the cays, but scarce on Great and Little Exuma. Breeding.—A pair with one egg at Lightning Rocks on 29 May, ca 30 adults and ten single-egg clutches on an islet off the eastern coast of Halls Pond Cay on 1 June [16 abandoned eggs and no adults during revisit, 25 June], ca 25 adults and two clutches (one with one egg, the other with two) on an islet off the southern tip of Waderick Wells Cay, 9 June, and ca 150 adults with many chicks and eggs at Channel Cays, 14 June 1991 (DWB), and nesting confirmed on Hawksbill Rock (off Hawksbill Cay?) and Little Bells Cay (Sprunt 1984).

Least Tern (*S. albigrons*).—Common summer visitor throughout.

Breeding.—Two colonies, ca five and three pairs, both with two-egg (mainly) and single-egg clutches, Waderick Wells Cay, 21–27 May 1991 (DWB); ca ten adults and two two-egg clutches on an islet off the eastern coast of Halls Pond Cay, 1 June 1991 [eight abandoned eggs and no adults when revisited on 25 June] (DWB); ca 20–30 adults and many eggs on Elbow Cay, 5 June 1991 (PH); colony, 15 clutches (five with one egg, five with two eggs, four with one chick, and one with one chick and one egg), an islet off the southern tip of Waderick Wells Cay, 9 June 1991 (DWB); and recorded nesting on Little Bells Cay (Sprunt 1984).

Bridled Tern (*S. anaethetus*).—Summer visitor and probably more numerous than records indicate as some may go undetected among large flocks of Sooty Terns. I saw 10–15 on the Malabar Cays on 22 June and as many at Channel Cays on 25 June, but none elsewhere during summer 1991. Breeding.—Eggs “in an advanced state of incubation” at Ship Channel Cays in late May [1884?] (Maynard 1895:43), and one egg at Channel Cays on 25 June 1991 (DWB).

Sooty Tern (*S. fuscata*).—Common summer visitor and probably occurring on small, uninhabited islands throughout the chain, but no records south of Channel Cays. Breeding.—Colony, single-egg clutches “in an advanced state of incubation” on Ship Channel Cays on 8 and 9 June [1884?] (Maynard 1895:43); colonies (ca 20–40 pairs each, 200–300 pairs total) on islets between Cistern Cay and Waderick Wells Cay (including Saddle Cay mentioned by Sprunt [1984]), with eggs first seen on 29 May and young beginning 11 June 1991 (DWB) (some of the colonies numbering over 100 pairs each in recent years [PH]); 75–100 pairs and many eggs on Sandy Cay on 2 June, and 30–40 pairs and several eggs at Channel Cays on 14 June 1991 (DWB); and one banded as a recently fledged young in the Dry Tortugas, Florida on 13 June 1965 was recovered at a nest in the northern Exumas on 28 June 1972 (Buden 1991, BBL files).

Brown Noddy (*Anous stolidus*).—Common summer visitor and probably occurring on small uninhabited islands throughout the chain, but unrecorded south of Staniel Cay. Breeding.—“Hundreds” nesting on Little Norman’s Cay in late May 1991 (A. Potts); colonies (ca 5–40 pairs each, 150–250 pairs total) on islets between Cistern Cay and Waderick Wells Cay (including Saddle Cay mentioned by Sprunt [1984]), with many eggs during late May to mid-June 1991 (DWB) (some of the colonies numbering over 100 pairs in recent years [PH]); and several pairs each on Rocky Dundas and on islets off Staniel Cay and Pipe Cay on 31 May and 1 June 1991 (DWB).

Rock Dove (*Columba livia*)\*.—Introduced and recorded only in settlements on Great Exuma. Two seen in Georgetown on 6 March 1976 (MHC) are the first records. Common in Georgetown, 15 seen at Farmer’s Hill, and six others at The Forest, all in July 1991 (DWB).

White-crowned Pigeon (*C. leucocephala*).—Common to very common resident throughout and more numerous in summer than winter. Up to 1500 together on a small cay off the western coast of Great Exuma during one recent fall (M. Minns). Breeding.—A nest with two eggs, Little Bells Cay, 28 May 1991 (DWB); colony, ca 20 pairs, four nests with two eggs and one with one egg, Waderick Wells Cay, 29 May 1991 [ca 100 pairs estimated islandwide] (DWB); three nests each with two eggs and one with two nestlings on Sandy Cay on 2 June, two others with two eggs on Shroud Cay on 4 June, and another with one pin-feathered young on Rocky Dundas, 14 June 1991 (DWB); and nesting on Long Rock (off the western coast of Great Exuma), date unrecorded (Bryant 1859:120).

White-winged Dove (*Zenaida asiatica*).—Probably a scarce and recently established resident on Great Exuma, where seen occasionally in ones and twos during July 1991 (DWB). M. Minns, who has hunted birds on Great Exuma for many years had not seen any prior to summer 1991, but he told me other hunters began seeing them on nearby Long Island during the mid-1980s, first at the southern end and more recently islandwide. Those I saw on Long Island during summer 1990, including one incubating, were reported as first records (Buden 1992).

Zenaida Dove (*Z. aurita*).—Fairly common resident throughout the cays (maximum 15 together on Lee Stocking Island, 2 July, 1991, DWB), but uncommon on Great and Little Exuma. Breeding.—Two eggs in a shallow, sandy depression sparsely lined with grasses in a patch of sea oats (*Uniola*) on Waderick Wells Cay, 21 May 1991 (DWB).

Mourning Dove (*Z. macroura*).—Uncommon resident on Great and Little Exuma, but unrecorded in the cays north of Baratterre. Known on Little Exuma at least since the 1930s (Bond 1936:150), but more numerous since the introduction of birds from Nassau to Georgetown, Great Exuma by N. Minns in the early 1980s.

Common Ground-Dove (*Columbina passerina*).—Common to very common resident throughout. Breeding.—A nest with two young, 26 May 1991 (DWB) [local residents report the nest hosted two successive broods as it contained two young on 28 April, was empty on 12 May, and contained two newly hatched young on 23 May]; two nests on Lee Stocking Island, one with two eggs in June 1987 (JBD et al.), and the other with two eggs on 2 July 1991 (DWB).

Key West Quail-Dove (*Geotrygon chrysis*).—Rare resident. One was seen on Highborne Cay on 18 December 1990 and another south of The Forest, Great Exuma on 22 July 1991 (DWB). Fossils are known from Little Exuma (Olson and Hilgartner 1982).

Mangrove Cuckoo (*Coccyzus minor*).—Fairly common resident on Great and Little Exuma, but apparently rare or scarce in the cays. More common in summer than in winter, at least on Great Exuma (M. Minns). I saw

and heard up to 13 per day from Baraterre southward to Little Exuma during 2 July–2 August 1991, but none elsewhere during 14–19 December 1990 and 20 May–2 July 1991. JBD et al. considered it fairly common in the Lee Stocking Island-northern Great Exuma region, and there are unconfirmed records from several islands in the northern part of the chain.

Yellow-billed Cuckoo (*C. americanus*).—Nonbreeding visitor. Seen in the Lee Stocking Island-northern Great Exuma region in October and in winter (JBD et al.), and recorded from “Exuma” (Bond 1956).

Smooth-billed Ani (*Crotophaga ani*).—Fairly common resident on Great and Little Exuma, but scarce in the cays north of Baraterre where the only records are one seen at Halls Pond Cay on 15 December and seven at Highborne Cay, 17 December 1990 (DWB), one on Lee Stocking Island in June 1987 (JBD et al.), and others at Staniel Cay (J. Mann). Breeding.—Young observed on Great Exuma in late summer and early fall 1988 (JBD et al.).

Barn Owl (*Tyto alba*).—Probably a rare resident throughout the chain, but records are scanty and breeding is undocumented. I found one wing feather on Allen’s Cay on 19 December 1990 and received reports from visiting boaters of a Barn Owl carrying prey on Waderick Wells Cay on 29 May 1991, and of a “large, white owl” found dead at Ship Channel Cays in early June 1991. Bond (1956) recorded *T. alba* from “Exuma” without further comment.

Burrowing Owl (*Speotyto cunicularia*).—A scarce resident throughout. I saw one on Halls Pond Cay on 16 December 1990 and another south of The Forest, Great Exuma on 22 July 1991, both during midday. I also received reports of Burrowing Owls on Norman’s Cay (local police), Waderick Wells Cay (PH, B. Rader), and Bells Cay (local caretaker). Additionally, JBD et al. reported one seen on Lee Stocking Island in January 1988 and others on Great Exuma during early morning and late evening year-round, and many residents of Great Exuma told me of seeing Burrowing Owls from time to time, but less frequently in recent years. J. H. Ingraham collected 2 male, 2 female, and one unidentified as to sex, all on Exuma (=Great Exuma)—on 10 June 1892 (FMNH, originally in Cory collection). Fossils are known from Little Exuma (Olson and Hilgartner 1982).

Antillean Nighthawk (*Chordeiles gundlachi*).—Common summer visitor throughout. Breeding.—Seventeen single-egg clutches, Waderick Wells Cay (two on 27 May, one on 13 June), Shroud Cay (three, 3–4 June), Hawksbill Cay (four, 5–6 June), Norman’s Cay (one, 1 July), Bock Cay (one, 3 July), Stocking Island (one, 5 July), and Great Exuma (four, 7 July–1 August), plus several chicks and recently fledged young on Great and Little Exuma during 7 July–1 August, all 1991 (DWB); nesting on

Little Hawksbill Cay in early June, year unrecorded (PH); and one egg on Williams Cay, mid-May 1991 (A. Stoner).

Chuck-will's-widow (*Caprimulgus carolinensis*).\*—Nonbreeding visitor. Heard calling at Waderick Wells Cay regularly during 22 May–27 June, and a pair flushed twice from the same buttonwood (*Conocarpus*) swamp on 12 and 26 June 1991 (DWB); recorded on Waderick Wells Cay on 24 March, 10 April, and 24 April, and on Hawksbill Cay on 9 April 1991 (RS), and heard calling at Allen's Cays on 18 June 1991 (R. Every). The Chuck-will's-widow generally is considered a rare to uncommon winter visitor to the Bahamas (Brudenell-Bruce 1975, Buden 1987a). Paterson's (1972) record of one incubating an egg on Andros Island (a first for the West Indies) during 13–26 June 1970 was accepted by the A.O.U. (1983), but not by Bond (1973:3, 1984:20), who believed it a misidentified Antillean Nighthawk. Although the recent June records lend indirect support to Paterson's claim of breeding, I consider it to be a nonbreeding visitor throughout the West Indies pending more substantial corroborative evidence to the contrary.

Bahama Woodstar (*Calliphlox evelynae*).—Uncommon to locally common resident throughout. Breeding.—Eggs and young observed in a nest on Staniel Cay during late April–early May 1990 (J. Mann), and nesting on Norman's Cay on 21 April 1991 (RS).

Belted Kingfisher (*Ceryle alcyon*).\*—Nonbreeding visitor. Singles seen at Shroud Cay on 9 and 20 April and Halls Pond Cay on 17 April 1991 (RS), and others year-round in the Lee Stocking Island-northern Great Exuma region (JBD et al.).

Yellow-bellied Sapsucker (*Sphyrapicus varius*).\*—Nonbreeding visitor. One undated record for Staniel Cay (J. Mann), but many unconfirmed winter records of woodpeckers throughout the Exumas doubtless pertain to *S. varius*, the only species of woodpecker occurring now, although fossils of the West Indian Woodpecker, *Melanerpes superciliaris* are known from Little Exuma (Olson and Hilgartner 1982). Additionally, the ubiquitous drill holes in tree trunks attest to the occurrence of *S. varius* throughout the region.

Eastern Wood-Pewee (*Contopus virens*).—Nonbreeding visitor. Recorded from "Great and Little Exuma" (PR-L in Bond 1968), and one collected (MCZ 332851) on Great Exuma, 24 July 1991 (DWB).

La Sagra's Flycatcher (*Myiarchus sagrae*).\*—The one I saw near Moss Town, Great Exuma on 12 July 1991 is the only record and probably a vagrant from elsewhere in the Bahamas or Cuba. The nearest breeding population is on Eleuthera, 115 km north of Great Exuma and 50 km east of the northern cays.



Eastern Kingbird (*Tyrannus tyrannus*).—Nonbreeding visitor. Recorded on “Great and Little Exuma” (PR-L in Bond 1968).

Gray Kingbird (*T. dominicensis*).—Fairly common summer visitor throughout the chain, being most numerous on Great and Little Exuma. Breeding.—A nest with three young on Lee Stocking Island on 5 July, and another with an adult (incubating?) on Great Exuma on 7 July 1991 (DWB), and a pair nesting in the same palm tree on Lee Stocking Island in 1987 and 1988, the young fledging in August (JBD et al.).

Purple Martin (*Progne subis*).—\*—Nonbreeding visitor. One seen at Waderick Wells Cay, 19 February 1989 (PH).

Barn Swallow (*Hirundo rustica*).—\*—Nonbreeding visitor. Up to 11 together (but mainly ones and twos) at Norman’s, Shroud, Little Cistern, Waderick Wells, Halls Pond, Compass, Twin, and Staniel cays during 1–26 April 1991 (RS), ones and twos seen occasionally at Waderick Wells Cay and Halls Pond Cay on 21 and 22 May 1991 (DWB), and small flocks in the Lee Stocking Island-northern Great Exuma region in spring (JBD et al.).

House Wren (*Troglodytes aedon*).—Nonbreeding visitor. Seen on Great Exuma in late February 1964 (R. D. Wood in Bond 1964:10).

Wood Thrush (*Hylocichla mustelina*).—\*—Nonbreeding visitor. One seen on Wax Cay, 22 April 1991 (RS).

Red-legged Thrush (*Turdus plumbeus*).—Probably resident during the Pleistocene when Exuma land area was greater and woodlands more extensive. The only definite record is a fossil humerus from Little Exuma (Olson and Hilgartner 1982). However, Allen (1961a:157) wrote “I landed with a party of naturalists one morning in late January [1958] on Waderick Wells. As we went ashore . . . we were immediately greeted by the loud *wet-wet* of the red-legged thrush . . .,” and in a report submitted to the Bahamas Government he (Allen 1961b) stated “Landing on the edge of a wide sandy area on the west side, we were immediately greeted by the notes of the red-legged thrush (*Mimocichla plumbea*). . . .” Neither account mentions a sighting, but Bond (1962:9) referred to Allen’s “sight record” of *T. plumbeus* on Waderick Wells Cay and the Exuma Cays have since generally been considered part of its present-day range (Brudenell-Bruce 1975, A.O.U. 1983). I consider Allen’s record questionable, as did Bond (1984:10, 1988:174) in some of his later publications. If indeed, Allen encountered *T. plumbeus* in the cays I believe it more likely a vagrant than a local breeding bird. *T. plumbeus* is resident in woodlands in the northern Bahamas on Grand Bahama, the Abacos, Andros, New Providence, and Cat Island, and it occurs also in the Greater and Lesser Antilles. I saw none during nearly three months in the Exumas, being based at

Waderick Wells Cay from 20 May to 27 June 1991, and none has been recorded by P. Hall, resident park warden in the northern cays since 1985.

Gray Catbird (*Dumetella carolinensis*).—Nonbreeding visitor. One seen at Halls Pond Cay on 16 December 1990 (DWB), another at Norman's Cay on 31 March 1907 (Chapman 1908:202), and two at Hawksbill Cay on 25 March 1991 (RS).

Northern Mockingbird (*Mimus polyglottos*).—Uncommon to common resident from Baraterre southward to Little Exuma, being most numerous in the settlements, and common on Norman's Cay and Staniel Cay (DWB), but unrecorded elsewhere except as an "occasional visitor" to Lee Stocking Island (JBD et al.). Breeding.—A nest with three downy young on Staniel Cay, 20 June 1991 (DWB), and two recently fledged young on Great Exuma, one on 29 April 1989 (JBD et al.), the other on 7 July 1991 (DWB).

Bahama Mockingbird (*M. gundlachi*).—Very common resident on many of the cays and on Great and Little Exuma, occurring even on small, sparsely vegetated islets and frequently seen in flight between cays. But unexpectedly absent or scarce on other seemingly suitable islands. I saw only one on Hawksbill Cay during 5–7 June 1991 and none on Shroud Cay (3–4 June), Bells Cay (26 May, 15–17 June), and Great Guana Cay (28 June), although M. H. Clench recorded two on Great Guana on 4 March 1976. Breeding (all records are 1991 DWB).—Four nests under construction (Halls Pond Cay on 23 May, Waderick Wells Cay on 20 June, and Great Exuma on 16 July and 1 August); one adult in a nest on Little Exuma, 26 July; a nest with three eggs on Rudder Cut Cay, 29 June; two recently fledged young soliciting food from an adult on Waderick Wells Cay on 18 June, and two other recently fledged young on Great Exuma, one on 20 July, the other on 1 August. The nest at Rudder Cut Cay was on the ground at the base of a clump of grass on a disused airstrip, and the five others were 0.5–5.5 m high in trees and shrubs.

Pearly-eyed Thrasher (*Margarops fuscatus*).—Nonbreeding visitor. The only record is one seen on Great Exuma in February 1964 (R. D. Wood in Bond 1964). *M. fuscatus* breeds in the Bahamas as far north as Rum Cay and San Salvador but has been recorded occasionally further north on Great Bank and Little Bank islands (Buden 1987b, 1992). Fossils from Little Exuma identified as *M. fuscatus* by Wetmore have been reidentified as *Sturnella* sp. by Olson and Hilgartner (1982).

Thick-billed Vireo (*Vireo crassirostris*).—Very common resident throughout. Breeding.—A nest with two eggs on Hawksbill Cay on 4 June and another with two eggs on Stocking Island, 17 July 1991 (DWB).

Black-whiskered Vireo (*V. altiloquus*).—\*—Fairly common summer vis-

itor on Great and Little Exuma, but uncommon in the cays. Seen and heard calling at Norman's, Hawksbill, Halls Pond, Bells, Staniel, and Norman's Pond cays occasionally during 23 May–1 July 1991 (DWB), and one male (MCZ 68447) was collected at Conch Cut Cay (=Rocky Dundas?) by C. J. Maynard on 12 March 1915.

Northern Parula (*Parula americana*).\*—Nonbreeding visitor. Seen in the Lee Stocking Island–northern Great Exuma region occasionally in spring and fall (JBD et al.).

Yellow Warbler (*Dendroica petechia*).—Uncommon resident in mangroves throughout. Seen and heard calling on Shroud, Hawksbill, Waderick Wells, Halls Pond, and Staniel cays, and on Great and Little Exuma during 26 May–26 July 1991 (DWB), and recorded from "Exuma Cays" by Cory (1892). A male (AS 7639) and female (AS 7640) *D. p. gundlachii* were collected on Staniel Cay by J. K. Lewis on 24 December 1964.

Magnolia Warbler (*D. magnolia*).—Nonbreeding visitor. Seen on Little Wax Cay on 23 April 1989 (D. Lonsdale), Great Exuma in late January 1964 (Bond 1964), and in the Lee Stocking Island–northern Great Exuma region occasionally in fall and winter (JBD et al.).

Cape May Warbler (*D. tigrina*).\*—Nonbreeding visitor. Singles seen at Norman's, Hawksbill, Waderick Wells, and Halls Pond cays during 17 April–25 May 1991, and 25 on Wax Cay on 22 April 1991 (RS), one at Halls Pond Cay on 25 April 1989 (D. Lonsdale), and one with an injured but functional wing on Waderick Wells Cay on 9 and 11 June 1991 (DWB). Recorded in the Lee Stocking Island–northern Great Exuma region during spring and fall and less frequently in winter (JBD et al.).

Black-throated Blue Warbler (*D. caerulescens*).\*—Nonbreeding visitor. Two seen on Norman's Cay, 21 April, ten on Wax Cay, 22 April, and one at Halls Pond Cay, 25 April 1991 (RS). Recorded on Wax Cay also on 23 April 1989 (D. Lonsdale), and seen occasionally in the Lee Stocking Island–Great Exuma region during fall migration (JBD et al.).

Yellow-rumped Warbler (*D. coronata*).\*—Nonbreeding visitor. One seen on Highborne Cay on 17 December 1990 (DWB), and three (AS 7643, 7645, 7646) collected at Big Major's Spot on 24 December 1967.

Yellow-throated Warbler (*D. dominica*).\*—Nonbreeding visitor. Seen on Little Wax Cay on 23 April 1989 (D. Lonsdale) and in the Lee Stocking Island–northern Great Exuma region occasionally in fall (JBD et al.). C. J. Maynard collected one *D. d. dominica* on Harvey's Cay (MCZ 68573, 13 March 1915) and another on Great Exuma (MCZ 68573, 21 March 1915).

Prairie Warbler (*D. discolor*).—Nonbreeding visitor. Three seen on Waderick Wells Cay, 15 December, and several on Highborne Cay, 17–

18 December 1990 (DWB), and recorded from "Exuma Cays" by Riley (1905).

Palm Warbler (*D. palmarum*).—Nonbreeding visitor. Many recent winter records throughout the cays, and recorded from "Exuma Cays" by Riley (1905). The absence of records from Great and Little Exuma doubtless is artificial.

Blackpoll Warbler (*D. striata*).—\*—Nonbreeding visitor. Two seen on Norman's Cay on 21 April and two others on Wax Cay, 22 April 1991 (RS).

Black-and-white Warbler (*Mniotilta varia*).—\*—Nonbreeding visitor. One seen on Highborne Cay on 18 December 1990 (DWB), one or two each on Norman's, Wax, Hawksbill, and Sandy cays during 17–22 April 1991 (RS), and others in the Lee Stocking Island–northern Great Exuma region occasionally in spring and fall (JBD et al.).

American Redstart (*Setophaga ruticilla*).—\*—Nonbreeding visitor. Recorded in ones and twos on Highborne, Norman's, Wax, and Halls Pond cays during December–May (DWB, M. H. Clench, RS), and considered fairly common in spring and fall and less numerous in winter in the Lee Stocking Island–Great Exuma region (JBD et al.). One I saw on Shroud Cay on 4 June 1991 is an unusual summer record.

Prothonotary Warbler (*Protonotaria citrea*).—Nonbreeding visitor. One seen on Great Exuma, 10 August 1968 (R. W. Northridge in Bond 1970).

Worm-eating Warbler (*Helmitheros vermivorus*).—Nonbreeding visitor. One seen on Highborne Cay on 17 December 1990 (DWB), and recorded on Great and Little Exuma (PR-L in Bond 1968).

Ovenbird (*Seiurus aurocapillus*).—\*—Nonbreeding visitor. Singles seen at Allen's, Highborne, Waderick Wells, and Halls Pond cays during 15–19 December 1990 (DWB), another on Wax Cay on 22 April 1991 (RS), and others in the Lee Stocking Island–northern Great Exuma region occasionally in spring and fall, less often in winter (JBD et al.).

Northern Waterthrush (*S. noveboracensis*).—\*—Nonbreeding visitor. One seen on Wax Cay on 22 April 1991 (RS), and others in the Lee Stocking Island–northern Great Exuma region occasionally in spring and fall, less often in winter (JBD et al.).

Louisiana Waterthrush (*S. motacilla*).—Nonbreeding visitor. Singles seen on Great Exuma on 16, 18, and 25 July, and one on Little Exuma, 30 July 1991 (DWB), and recorded on "Great and Little Exuma" by PR-L (in Bond 1968).

Common Yellowthroat (*Geothlypis trichas*).—\*—Nonbreeding visitor. A male and female seen on Allen's Cay on 19 December 1990 (DWB), singles on Wax Cay on 22 April and Hawksbill Cay on 23 April 1991 (RS), and

others in the Lee Stocking Island–northern Great Exuma region occasionally in spring and fall, less often in winter (JBD et al.).

Bananaquit (*Coereba flaveola*).—Very common resident throughout. Breeding.—A nest with one egg, Bells Cay, 25 May, another with three eggs, Stocking Island, 5 July, and many recently fledged young throughout the chain during late May–early August 1991 (DWB); a nest with two ca one-week-old nestlings and one abortive egg, U Key (=Southwest Allen's Cay), 10 April 1893 (Maynard 1895:564); young seen in the Lee Stocking Island–northern Great Exuma region in July (JBD et al.); and “nesting” on Norman's Cay on 31 March 1907 (Chapman 1908:202) and on Hawksbill Cay and Waderick Wells Cay during April–May 1991 (RS).

Stripe-headed Tanager (*Spindalis zena*).—Scarce to uncommon resident on Great Exuma—up to five in one day during July 1991 (DWB), most of the sightings being toward the end of the month when singing males were more evident. The only records for the cays are two seen on Waderick Wells Cay on 15 December 1990 (none during 20 May–27 June 1991) and several in a heavily wooded col on Highborne Cay, 17 December 1990 (DWB). To the best of my knowledge, all previous reports of *S. zena* from the Exumas are based upon a male *S. z. zena* collected at Roseville (=Rolleville), Great Exuma by C. J. Maynard on 21 March 1915 (MCZ 68544).

Indigo Bunting (*Passerina cyanea*).—Nonbreeding visitor. One seen on Wax Cay on 22 April 1991 (RS), others on Lee Stocking Island occasionally in spring (JBD et al.), and recorded on “Great and Little Exuma” (PR-L in Bond 1968).

Painted Bunting (*P. ciris*).—\*—Nonbreeding visitor. One seen on Highborne Cay, 17 December 1990 (DWB), and others in the Lee Stocking Island–Great Exuma region occasionally in spring and winter (JBD et al.).

Black-faced Grassquit (*Tiaris bicolor*).—Common resident on Great and Little Exuma, but generally uncommon (but widespread) in the cays, being scarce or absent on some; unrecorded on Waderick Wells Cay and Halls Pond Cay among the more thoroughly surveyed islands. Usually seen in casuarinas (*Casuarina equisetifolia*) and in weedy or grassy areas. Breeding.—A nest (one egg) on Shroud Cay on 4 June, another under construction on Lee Stocking Island on 1 July, and a male and female at a nest on Great Exuma, 7 July 1991 (DWB), and an “incubating” female (MCZ 68586) collected on Harvey's Cay by C. J. Maynard, 16 March 1915.

Greater Antillean Bullfinch (*Loxigilla violacea*).—Common to very common resident on Highborne Cay and from Rudder Cut Cay southward to Little Exuma, but unrecorded elsewhere. The distributional hiatus in the cays is unexpected as seemingly suitable habitat is available and ob-

vious competitors are lacking. Possibly limited space and resources in the cays provide only marginal habitat, the southern cays sustaining populations perhaps because of their proximity to potential recruits from Great Exuma, whereas proximity to populations on Eleuthera and a lush (albeit limited) area of woodland may contribute to the success of *L. violacea* on Highborne Cay. Breeding.—A nest with five eggs, Great Exuma, 8 July 1991 (DWB).

Northern Oriole (*Icterus galbula*).\*—Nonbreeding visitor. One seen at Baraterre in December 1988 (JBD et al.) and another at Staniel Cay in 1990 (J. Mann).

#### DISCUSSION

Excluding fossils, at least 125 species of birds are known from the Exumas (126 if two species of cormorants occur). Of the 50 probable breeders, 25 are land birds, two of them (Rock Dove and Common Peafowl) being introductions. Fourteen are shorebirds (including gulls and terns), three are herons and egrets, two are ducks, two others are rallids, and the remaining four are a grebe, shearwater, tropicbird, and Osprey. At least nine others (all waterbirds) that breed elsewhere in the Bahamas and possibly in the Exumas are the Pied-billed Grebe, Double-crested Cormorant (or Neotropic Cormorant or both), Great Egret, Snowy Egret, Little Blue Heron, Reddish Egret, Cattle Egret, Ruddy Duck, and Snowy Plover.

Breeding is documented by observations of nests, eggs, and young for 32 of the 48 indigenous residents or summer visitors, 21 for the first time in the Exumas; all the land birds are listed in Table 1. Summer appears to be the peak breeding season for most species. During 20 May–2 August 1991, I found breeding in progress in 16 (64%) of the 25 species of waterbirds and 11 (49%) of 23 land birds. The only fall and winter breeding records are for the West Indian Whistling-Duck and Osprey.

Thirteen species of fossils (all from Little Exuma) have been discussed by Olson and Hilgartner (1982). The Key West Quail-Dove and Burrowing Owl are the only ones still resident in the Exumas and the Red-legged Thrush may be vagrant there. The giant hawk, *Titanohierax gloveralleni* and the giant barn owl, *Tyto pollens* are extinct. Four species are extant elsewhere in the Bahamas, the Antilles, or in continental North America (Sharp-shinned Hawk [*Accipiter striatus*], Scaled Pigeon [*Columba squamosa*], Cuban Crow [*Corvus nasicus*], and West Indian Woodpecker [*Melanerpes superciliaris*]), and a hawk (*Buteo*), snipe (*Capella*), flicker (*Colaptes*), and meadowlark (*Sturnella*), all unassigned as to species, have congeners in these regions.

I regard records of 14 additional species mentioned in Bond's check-

TABLE I  
INDIGENOUS, BREEDING LAND BIRDS OF THE EXUMAS LISTED IN DECREASING ORDER OF  
THEIR ABUNDANCE ON GREAT EXUMA

Species	Birds/km <sup>a</sup>	Abundance <sup>b</sup>	
	Great Exuma	Great Exuma	Exuma Cays
Bananaquit ( <i>Coereba flavola</i> )	4.4	VC	VC
Bahama Mockingbird ( <i>Mimus gundlachi</i> )	4.3	VC	VC <sup>c</sup>
Thick-billed Vireo ( <i>Vireo crassirostris</i> )	3.7	VC	VC
Greater Antillean Bullfinch ( <i>Loxigilla violacea</i> )	3.7	VC	C <sup>d</sup>
Common Ground-Dove ( <i>Columbina passerina</i> )	2.7	C-VC	C
White-crowned Pigeon ( <i>Columba leucocephala</i> )	2.4	C-VC	C
Black-faced Grassquit ( <i>Tiaris bicolor</i> )	1.5	C	UC
Antillean Nighthawk ( <i>Chordeiles gundlachi</i> )	0.2	C	C
Gray Kingbird ( <i>Tyrannus dominicensis</i> )	1.3	FC-C	FC
Black-whiskered Vireo ( <i>Vireo altiloquus</i> )	0.9	FC	UC
Mangrove Cuckoo ( <i>Coccyzus minor</i> )	0.6	FC	S
Smooth-billed Ani ( <i>Crotophaga ani</i> )	0.5	FC	S
Bahama Woodstar ( <i>Calliphlox evelynae</i> )	0.4	FC	UC-FC
Northern Mockingbird ( <i>Mimus polyglottos</i> )	0.4	UC-C	C <sup>e</sup>
Mourning Dove ( <i>Zenaida macroura</i> )	0.3	UC	nr
Zenaida Dove ( <i>Zenaida aurita</i> )	0.2	UC	FC
American Kestrel ( <i>Falco sparverius</i> )	0.0	UC	S <sup>f</sup>
Yellow Warbler ( <i>Dendroica petechia</i> )	0.0	UC	UC
Stripe-headed Tanager ( <i>Spindalis zena</i> )	0.1	S-UC	S <sup>g</sup>
White-winged Dove ( <i>Zenaida asiatica</i> )	0.0	S	nr
Key West Quail-Dove ( <i>Geotrygon chrysis</i> )	0.0	R	R
Burrowing Owl ( <i>Speotyto cunicularia</i> )	0.0	R	R
Barn Owl ( <i>Tyto alba</i> )	0.0	R	R

<sup>a</sup> The number of birds seen and heard/km during surveys covering 112 km.

<sup>b</sup> VC = very common, C = common, FC = fairly common, UC = uncommon, S = scarce, R = rare, nr = no record. Abundance in the Exuma Cays (islands north of Baratarre) is based on general observations only.

<sup>c</sup> One of the most common species in the Exumas overall, but unexpectedly absent or scarce on many islands.

<sup>d</sup> Common on Highborne Cay and from Rudder Cut Cay southward through the chain, but unrecorded elsewhere.

<sup>e</sup> Locally common especially in some of the settlements, but absent or scarce on many islands.

<sup>f</sup> Recorded only on Lee Stocking Island.

<sup>g</sup> Recorded only on Highborne Cay and Waderick Wells Cay.

list supplements as questionable. Eleven were submitted by P. Rodgers-Lee (Bond 1968), then a recent arrival to the Exumas and unfamiliar with Bahaman and North American birds—Lesser Golden-Plover (*Pluvialis dominica*), Wilson's Phalarope (*Phalaropus tricolor*), Forster's Tern (*Sterna forsteri*), Acadian Flycatcher (*Empidonax virescens*), Tree Swallow (*Tachycineta bicolor*), Bahama Swallow (*T. cyaneoviridis*), Bank Swallow (*Riparia riparia*), Loggerhead Shrike (*Lanius ludovicianus*), Nashville Warbler (*Vermivora ruficapilla*), Canada Warbler (*Wilsonia canadensis*),

and Grasshopper Sparrow (*Ammodramus savannarum*). The other sight records relegated to hypothetical status are American Bittern (*Botaurus lentiginosus*) and Forster's Tern on Great Exuma (Bond 1964), and Common Tern (*Sterna hirundo*) on Stocking Cay (=Stocking Island) (Bond 1978).

#### ACKNOWLEDGMENTS

I thank the many residents and visitors to the Exumas who contributed numerous new locality records, especially P. Hall, resident warden of Exuma Cays Land and Sea Park who additionally furnished transport to many remote cays, and without whose assistance and knowledge of local natural history this report would have been greatly diminished. I also thank the staff and visiting researchers at Caribbean Marine Research Center, Lee Stocking Island for their assistance during my stay, and the Bahamas Ministry of Agriculture and Fisheries and the Bahamas National Trust for permission to do field work in the Exumas, and D. Willard for information on FMNH specimens.

#### LITERATURE CITED

- ALLEN, R. P. 1956. The flamingos. Nat. Aud. Soc. Res. Report No. 5, New York, New York.
- . 1961a. Birds of the Caribbean. The Viking Press, New York, New York.
- . 1961b. General ecology: bird life, lizards and Mollusca. Pp. 12–15 in Report of the Exuma Cays park project. Results of a survey made January 19–28, 1958 under the auspices of the New York Zoological Society and the Conservation Foundation submitted to The Government of the Bahamas May 1958 (C. Ray, ed.).
- AMERICAN ORNITHOLOGISTS' UNION. 1983. Check-list of North American birds, 6th ed. A.O.U., Washington, D.C.
- . 1989. Thirty-seventh supplement to the American Ornithologists' Union check-list of North American birds. *Auk* 106:532–538.
- . 1991. Thirty-eighth supplement to the American Ornithologists' Union check-list of North American birds. *Auk* 108:750–754.
- BOND, J. 1936. Birds of the West Indies. Waverly Press, Inc., Baltimore, Maryland.
- . 1952. Second supplement to the check-list of birds of the West Indies (1950). Acad. Nat. Sci. Philadelphia, Philadelphia, Pennsylvania.
- . 1956. Check-list of birds of the West Indies, 4th ed. Acad. Nat. Sci. Philadelphia, Philadelphia, Pennsylvania.
- . 1962, 1963, 1964, 1970, 1973, 1978, 1982, and 1984. Supplements 7, 8, 9, 15, 18, 22, 24, and 25, respectively, to the Check-list of birds of the West Indies (1956). Acad. Nat. Sci. Philadelphia, Philadelphia, Pennsylvania.
- . 1988. Birds of the West Indies, 5th ed. (revised). Collins, London, England.
- BRUDENELL-BRUCE, P. G. C. 1975. The birds of New Providence and the Bahama Islands. Collins, London, England.
- BRYANT, H. 1859. A list of birds seen at the Bahamas, from Jan. 20th to May 14th, 1859, with descriptions of little known species. *Proc. Boston Soc. Nat. Hist.* 7:102–134.
- BUDEN, D. W. 1987a. The birds of the southern Bahamas. British Ornithologists' Union, London, England.
- . 1987b. The birds of Cat Island, Bahamas. *Wilson Bull.* 99:579–600.
- . 1991. Bird band recoveries in the Bahama Islands. *Carib. J. Sci.* 27:63–70.
- . 1992. The birds of Long Island, Bahamas. *Wilson Bull.* 104:220–243.



- CHAPMAN, F. M. 1908. Camps and cruises of an ornithologist. D. Appleton and Co., New York, New York.
- CORY, C. B. 1880. Birds of the Bahama Islands. Privately published by the author, Boston, Massachusetts.
- . 1892. Catalogue of West Indian birds. Published by the author. Alfred Mudge and Sons, Printers, Boston, Massachusetts.
- LANDS AND SURVEYS DEPARTMENT. 1968–1969. Exuma group. BLS Series 317, sheets 1–18, scale 1:25,000. Land and Surveys Dept., Nassau, Bahamas.
- MAYNARD, C. J. 1894. Monograph of the genus *Strophia*. Contrib. Sci. 2:107–152.
- . 1895. The birds of eastern North America. Privately published by the author, Newtonville, Massachusetts.
- . 1920. Shorebirds of the Bahama Islands. Records of Walks and Talks with Nature 12:4–6, 12–15, 18–21.
- . 1926. Contributions to the history of the Cerionidae with descriptions of many new species and notes on evolution in birds and plants. Records of Walks and Talks with Nature 10, Appendix 12:195–242.
- MINISTRY OF EDUCATION. 1985. Atlas of the Commonwealth of the Bahamas. Ministry of Education and Culture, Nassau, Bahamas. Kingston Publ., Kingston, Jamaica.
- OLSON, S. L. AND W. B. HILGARTNER. 1982. Fossil and subfossil birds from the Bahamas. Pp. 22–60 in Fossil vertebrates from the Bahamas (S. L. Olson, ed.). Smith. Contrib. Paleobiol. No. 48.
- PATERSON, A. 1972. Nesting of Chuck-will's-widow on Andros Island, Bahamas. Auk 89: 676–677.
- RILEY, J. H. 1905. Birds of the Bahamas Islands. Pp. 347–368 in The Bahama Islands (G. B. Shattuck, ed.). Geographical Society of Baltimore and Johns Hopkins Press, Baltimore, Maryland.
- SPRUNT, A. 1984. The status and conservation of seabirds of the Bahama Islands. Pp. 157–168 in Status and conservation of world's seabirds (J. P. Croxall, P. G. H. Evans, and R. W. Schreiber, eds.). Int. Coun. Bird. Pres. Tech. Publ. 2.
- WATSON, G. E., S. L. OLSON, AND J. R. MILLER. 1991. A new subspecies of the Double-crested Cormorant, *Phalacrocorax auritus*, from San Salvador, Bahama Islands. Proc. Biol. Soc. Washington 104:356–369.
- WOLFE, L. R. 1951. Eggs of the Falconiformes [part III]. The Oologists' Rec. 25:49–54.